APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,626	01/03/2002	Troy L. Bartlett	271901-1030	6773

7590 07/21/2004		EXAMINER
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ART UNIT	PAPER NUMBER
2177	

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DATE MAILED: 07/21/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 January 2002</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The Application 10/037626 filed on 01/03/2002 has been examined. Claims 1-20
are pending in this Office Action.

Priority

2.   acknowledgement is made of a claim for domestic priority under 35 U.S.C.
119(e) since the specific reference, provisional application 60/259528 filed on 1/03/2001
was included in the first sentence of the specification or the application Data Sheet. 37
CFR 1.78.

Specification

3.   The abstract is objected because the abstract has a copy of the claim 1 and
itemization in the abstract is considered as separate paragraphs. Corrected abstract of
the disclosure is required and must be presented on a separate sheet, apart from any
other text. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent
and should include that which is new in the art to which the invention pertains. If the
patent is of a basic nature, the entire technical disclosure may be new in the art, and the
abstract should be directed to the entire disclosure. If the patent is in the nature of an
improvement in an old apparatus, process, product, or composition, the abstract should

include the technical disclosure of the improvement. In certain patents, particularly

those for compounds and compositions, wherein the process for making and/or the use

thereof are not obvious, the abstract should set forth a process for making and/or use

thereof. If the new technical disclosure involves modifications or alternatives, the

abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of

the invention and should not compare the invention with the prior art.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in
>
> public use or on sale in this country, more than one year prior to the date of application for patent in
>
> the United States.

5.   Claims 1, 6-9, 11, 15-16 and 20 are rejected under 35 U.S.C. § 102(b) as being

anticipated by Cheng et al. (U.S. Patent 5,884,324).

6.   Cheng anticipated independent claim 1 and teaches as the data replication agent

reduces mobile link communications by collecting all of the data for the remote client

database tables quickly. The replication agent eliminates the special conversion

protocol and also collects source data on different platforms (col. 2, lines 11-29). Cheng

also teaches after receiving the client database table and then receives a change log

from the database management system and generates a table of changed data using

the change log and the remote client table (col. 2, lines 32-39). Cheng teaches the

claimed step of "providing an original data" as the remote client sends the client

database tables expressing the desire to synchronize the remote database (Fig. 2A, col.

3, lines 48-52). Further, Cheng teaches the claimed step of "creating updated data of

the original data" as in the block 204 and 206, the replication agent reads the change

log reads the change log data (Fig. 2A, col. 3, lines 59-62). Further, Cheng teaches the

claimed step of "generating a delta data that identifies only the changes between the

original data and the updated data" as in the block 208, the data replication agent

generates a table of changed data (Fig. 2A, col. 3, lines 62-65). Finally, Cheng teaches

the claimed step of "transmitting the delta data to a remote device" as in the block 210,

the replication agent transmitting the changed data to the remote client (Fig. 2A, col. 3,

lines 65-66).

7.   As per independent claim 6 related to the system, Cheng teaches as the data

replication agent reduces mobile link communications by collecting all of the data for the

remote client database tables all at once. The replication agent eliminates the special

conversion protocol and also collects source data on different platforms (col. 2,

lines 11-29). Cheng also teaches after receiving the client database table and then

receives a change log from the database management system and generates a table of

changed data using the change log and the remote client table (col. 2, lines 32-39).

Cheng teaches the claimed "remote device with device data" as the remote client 100

desires to be replicated the database (Fig. 2A, col. 3, lines 50-52). Further, Cheng

teaches the claimed "server device containing an original data and a revision data of the

original data" as the data replication agent 102 accessing and reading the change log in

the database management system 108 (Fig. 2A, col. 3, lines 59-62). The change log is

provided by the database 108, so the original data and the revised data are on the

server. Finally, Cheng teaches the claimed "delta data that identifies only the changes

between the original data and the revision data" as the process performed by

reconstructing the changes to the source database tables identified in the change log

(Fig. 2A, col. 4, lines 1-3).

8.   As per dependent claim 7 related to the system, Cheng teaches the claimed "the

remote device further comprises: a synchronization module that create the revision data

on the remote device using the delta data and the device data" as the software

application 113 performs the steps necessary to execute the components of the present

invention (Fig. 1, col. 3, lines 29-36).

9.   As per dependent claim 8 related to the system, Cheng teaches the claimed "the

server device further comprises: a transmission module that transmits the delta data to

the remote device so the remote device can recreate the revision data" as in the block

210, the data replication agent transmits the changed data to the remote client (Fig. 2A, col. 3, lines 65-66).

10.   As per dependent claim 9 related to the system, Cheng teaches the claimed "the server device further comprises: a compare module that compares each block of data in the original data with each block of data in the revision data" as in the block 208, the data replication agent 102 uses the remote client database table, change log and logical database operators to generate a table of changed data (Fig. 2A, col. 3, lines 62-65).

11.   As per independent claim 11 related to the computer readable medium, Cheng teaches as the data replication agent reduces mobile link communications by collecting all of the data for the remote client database tables quickly. The replication agent eliminates the special conversion protocol and also collects source data on different platforms (col. 2, lines 11-29). Cheng also teaches after receiving the client database table and then receives a change log from the database management system and generates a table of changed data using the change log and the remote client table (col. 2, lines 32-39). Cheng teaches the claimed "providing an original data" as the remote client sends the client database tables expressing the desire to synchronize the remote database (Fig. 2A, col. 3, lines 48-52). Further, Cheng teaches the claimed "creating updated data of the original data" as in the block 204 and 206, the replication agent reads the change log reads the change log data (Fig. 2A, col. 3, lines 59-62). Further, Cheng teaches the claimed "generating a delta data that identifies only the

changes between the original data and the updated data" as in the block 208, the data

replication agent generates a table of changed data (Fig. 2A, col. 3, lines 62-65).

Finally, Cheng teaches the claimed "transmitting the delta data to a remote device" as in

the block 210, the replication agent transmitting the changed data to the remote client

(Fig. 2A, col. 3, lines 65-66).

12.   As per the dependent claim 15 related to the computer readable medium, Cheng

teaches the claimed step of "recreating the updated data on the remote device using

only the delta data and data on the remote device" as the process is performed by

reconstructing the changes to the source database tables (Fig. 2A, col. 4, lines 1-3).

13.   As per independent claim 16 related to the system, Cheng teaches system with

the data replication agent reduces mobile link communications by collecting all of the

data for the remote client database tables all at once. The replication agent eliminates

the special conversion protocol and also collects source data on different platforms

(col. 2, lines 11-29). Cheng also teaches after receiving the client database table and

receives a change log from the database management system and generates a table of

changed data using the change log and the remote client table (col. 2, lines 32-39).

Cheng teaches the claimed "providing an original data" as the remote client sends the

client database tables expressing the desire to synchronize the remote database

(Fig. 2A, col. 3, lines 48-52). Further, Cheng teaches the claimed "creating updated

data of the original data" as in the block 204 and 206, the replication agent reads the

change log reads the change log data (Fig. 2A, col. 3, lines 59-62). Further, Cheng

teaches the claimed "generating a delta data that identifies only the changes between

the original data and the updated data" as in the block 208, the data replication agent

generates a table of changed data (Fig. 2A, col. 3, lines 62-65). Finally, Cheng teaches

the claimed "transmitting the delta data to a remote device" as in the block 210, the

replication agent transmitting the changed data to the remote client (Fig. 2A, col. 3,

lines 65-66).

14.   As per the dependent claim 20 related to the system, Cheng teaches the claimed

"recreating the updated data on the remote device using only the delta data and data on

the remote device" as the process is performed by reconstructing the changes to the

source database tables (Fig. 2A, col. 4, lines 1-3).

Claim Rejections - 35 USC § 103

15.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be patented
> and the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

> This application currently names joint inventors. In considering patentability of the claims
> under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was
> commonly owned at the time any inventions covered therein were made absent any evidence to the

contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and

invention dates of each claim that was not commonly owned at the time a later invention was made in

order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e),

(f) or (g) prior art under 35 U.S.C. 103(a).

16.   Claims 2, 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cheng et al. (US Patent 5,884,324) and in view of Green et al. (US Patent

5,794,242).

17.   As per the dependent claim 2, Cheng teaches creating changed table or data

after comparing the original data to the updated data and does not explicitly teach

creating a binary tree to identify the changes between the original data and the updated

data. However, Green teaches the claimed step of "creating a binary tree to identify the

changes between the original data and the updated data" as the database 160

organized in a hierarchical manner as an inverted (binary) tree 200 (Fig. 2, col. 3,

lines 48-52). The example shown indicates updated nodes by A', B'... and the original

nodes by A, B, ... (Fig. 3, col. 4, lines 28-35). Teaching of Cheng and Green related to

databases synchronization. It would have been obvious to one of ordinary skill in the art

of data processing, at the time of the present invention, to combine the teachings of the

cited references because the databases synchronization of Green's method would have

provided Cheng's with the necessary procedure, which would allow quicker way to

identify data modifications (col. 2, lines 1-2) after organizing index records and data

records hierarchically as nodes in a B-tree (col. 1, lines 27-32).

18.   As per the dependent claim 12 related to the computer readable medium, Cheng

teaches creating changed table or data after comparing the original data to the updated

data, but does not explicitly teach creating a binary tree to identify the changes between

the original data and the updated data. However, Green teaches the claimed "creating

a binary tree to identify the changes between the original data and the update data" as

the database 160 organized in a hierarchical manner as an inverted (binary) tree 200

(Fig. 2, col. 3, lines 48-52). The example shown indicates updated nodes by A', B'...

and the original nodes by A, B, ... (Fig. 3, col. 4, lines 28-35). Teaching of Cheng and

Green related to databases synchronization. It would have been obvious to one of

ordinary skill in the art of data processing, at the time of the present invention, to

combine the teachings of the cited references because the databases synchronization

of Green's method would have provided Cheng's with the necessary procedure, which

would allow quicker way to identify data modifications (col. 2, lines 1-2) after organizing

index records and data records hierarchically as nodes in a B-tree (col. 1, lines 27-32).

19.   As per the dependent claim 17 related to the system, Cheng teaches creating

changed table or data after comparing the original data to the updated data, but does

not explicitly teach creating a binary tree to identify the changes between the original

data and the updated data. However, Green teaches the claimed "creating a binary tree

to identify the changes between the original data and the update data" as the database

160 organized in a hierarchical manner as an inverted (binary) tree 200 (Fig. 2, col. 3,

lines 48-52). The example shown indicates updated nodes by A', B'... and the original

nodes by A, B, ... (Fig. 3, col. 4, lines 28-35). Teaching of Cheng and green related to database and synchronization. It would have been obvious to one of ordinary skill in the art of data processing, at the time of the present invention, to combine the teachings of the cited references because the databases synchronization of Green's method would have provided Cheng's with the necessary procedure, which would allow quicker way to identify data modifications (col. 2, lines 1-2) after organizing index records and data records hierarchically as nodes in a B-tree (col. 1, lines 27-32).

20.   Claims 3-5, 10, 13-14, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al. (US Patent 5,884,324) and in view of Hertzog et al. (USPA Pub. 2003/0069874).

21.   As per dependent claim 3, Cheng teaches creating changed table/data after comparing the original data with updated data and does not explicitly teach delta data comprising personal data. However, Hertzog teaches the claimed step of "the generating delta data step further comprising of a personalized data to generate the delta data, wherein the personalized data is selected from the group consisting of appointment data, itinerary data, map data, weather data, calendar data, flight data, hotel data, taxi data, rental car data and contact data" as the personal information include address or contact information, calendar information... (page 3, paragraph 0041). Teaching of Cheng and Hertzog are related to databases synchronization. It would have been obvious to one of ordinary skill in the art of data processing, at the

time of the present invention, to combine the teachings of the cited references because

the databases synchronization of Hertzog's method would have provided Cheng's with

the necessary procedure, which would allow to update personal information, like contact

information so that the owner is responsible for maintenance of thereof and the user

may simply by changing personal information stored on the server, changes the

information that is viewable in the address books of other users of the service (page 1,

paragraph 0005). Further, by combining the teachings of the cited references because

the databases synchronization of Hertzog's method would have provided Cheng's with

necessary procedure, which would allow synchronizing copies of personal information

on PDAs, PIMs and the remote server operated by the web portal (page 1, paragraph

0006).

22.   As per dependent claim 4, Hertzog teaches the claimed step of "contact data

includes telephone data" as the terms 'personal information' shall be taken to include,

but not limited to address or contact information, ... (page 3, paragraph 0041).

23.   As per the dependent claim 5, Cheng teaches the claimed step of "recreating the

updated data on the remote device using only the delta data and a device original data"

as the process is performed by reconstructing the changes to the source database

tables (Fig. 2A, col. 4, lines 1-3).

24.   As per dependent claim 10 related to the system, Cheng teaches creating

changed table/data after comparing the original data with updated data and does not

explicitly teach delta data comprising personal data. However, Hertzog teaches the

claimed "the compare module compares personalized data to generate the delta data,

wherein the personalized data is selected from the group consisting of appointment

data, itinerary data, map data, weather data, calendar data, flight data, hotel data, taxi

data, rental car data and contact data" as the personal information include address or

contact information, calendar information... (page 3, paragraph 0041).   Teaching of

Cheng and Hertzog are related to databases synchronization. It would have been

obvious to one of ordinary skill in the art of data processing, at the time of the present

invention, to combine the teachings of the cited references because the databases

synchronization of Hertzog's method would have provided Cheng's with the necessary

procedure, which would allow to update personal information, like contact information so

that the owner is responsible for maintenance of thereof and the user may simply by

changing personal information stored on the server, changes the information that is

viewable in the address books of other users of the service (page 1, paragraph 0005).

Further, to combine the teachings of the cited references because the databases

synchronization of Hertzog's method would have provided Cheng's with necessary

procedure, which would allow synchronizing copies of personal information on PDAs,

PIMs and the remote server operated by the web portal (page 1, paragraph 0006).

25.   As per dependent claim 13 related to the computer readable medium, Cheng

teaches creating changed table/data after comparing the original data with updated data

and does not explicitly teach delta data comprising personal data. However, Hertzog

teaches the claimed "the generating logic uses personalized data to generate the delta data, wherein the personalized data is selected from the group consisting of appointment data, itinerary data, map data, weather data, calendar data, flight data, hotel data, taxi data, rental car data and contact data" as the personal information include address or contact information, calendar information... (page 3, paragraph 0041). Teaching of Cheng and Hertzog are related to databases synchronization. It would have been obvious to one of ordinary skill in the art of data processing, at the time of the present invention, to combine the teachings of the cited references because the databases synchronization of Hertzog's method would have provided Cheng's with the necessary procedure, which would allow to update personal information, like contact information so that the owner is responsible for maintenance of thereof and the user may simply by changing personal information stored on the server, changes the information that is viewable in the address books of other users of the service (page 1, paragraph 0005). Further, to combine the teachings of the cited references because the databases synchronization of Hertzog's method would have provided Cheng's with necessary procedure, which would allow synchronizing copies of personal information on PDAs, PIMs and the remote server operated by the web portal (page 1, paragraph 0006).

26.   As per dependent claim 14 related to the computer readable medium, Hertzog teaches the claimed step of "contact data includes telephone data" as the terms

'personal information' shall be taken to include, but not limited to address or contact

information, ... (page 3, paragraph 0041).

27.   As per dependent claim 18 related to the system, Cheng teaches creating

changed table/data after comparing the original data with updated data and does not

explicitly teach delta data comprising personal data. However, Hertzog teaches the

claimed "the generating logic uses personalized data to generate the delta data,

wherein the personalized data is selected from the group consisting of appointment

data, itinerary data, map data, weather data, calendar data, flight data, hotel data, taxi

data, rental car data and contact data" as the personal information include address or

contact information, calendar information... (page 3, paragraph 0041). Teaching of

Cheng and Hertzog are related to databases synchronization. It would have been

obvious to one of ordinary skill in the art of data processing, at the time of the present

invention, to combine the teachings of the cited references because the databases

synchronization of Hertzog's method would have provided Cheng's with the necessary

procedure, which would allow to update personal information, like contact information so

that the owner is responsible for maintenance of thereof and the user may simply by

changing personal information stored on the server, changes the information that is

viewable in the address books of other users of the service (page 1, paragraph 0005).

Further, to combine the teachings of the cited references because the databases

synchronization of Hertzog's method would have provided Cheng's with necessary

procedure, which would allow synchronizing copies of personal information on PDAs,

PIMs and the remote server operated by the web portal (page 1, paragraph 0006).

28.   As per dependent claim 19 related to the system, Hertzog teaches the claimed

"contact data includes telephone data" as the terms 'personal information' shall be taken

to include, but not limited to address or contact information, ... (page 3, paragraph

0041).

Other Cited References

29.   The following references are cited by the examiner but not relied upon are

considered pertinent to Applicant's disclosure:

    A) Hart, Donald R., (US Patent 6,408,310) discloses synchronize the database

    of the source with the backup database.

    B) Ng et al. (US Patent 6,131,096) discloses a system updates a remote

    database in a network.

    C) Halim et al. (US Patent 6,304,881) discloses a method for partially

    synchronizing a local database and a remote database.

    D) Carini et al. (US Patent 6,636,873) discloses a computer system for

    synchronizing a mobile device with a remote enterprise database.

    E) Miller et al. (US Patent 5,978,814) discloses native data signatures in a files

    system.

Conclusion

30.   The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

31.   If a reference indicated, as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is (703) 305-9601 for faster service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (703) 305-3390. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov.

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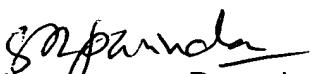
Sathyanarayan Pannala
Examiner
Art Unit 2177

srp
July 14, 2004